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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,269	09/18/2000	Johan Nilsson	040071-174	3896
21839	7590	08/26/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			APPIAH, CHARLES NANA	
POST OFFICE BOX 1404			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22313-1404			2686	

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/663,269

**Applicant(s)**

NILSSON, JOHAN

**Examiner**

Charles Appiah

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 7, 9-14, 17, 18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 9-14, 17, 18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-3, 6-7, 9-14, 17-18 and 20-22 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 2, 6-7, 9, 12-13, 17, 18, 20, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kubo et al. (6,249,682)** in view of **Juntti (5,564,074)**.

Regarding claims 1 and 12 Kubo discloses a method and a system for controlling the energy at which a transmit power control command is transmitted in a communication system including at least one base station and at least one remote station and employing transmit power control, comprising the steps of: determining a difference between a received signal quality and a reference including determining whether the received signal quality is above or below the reference and controlling a transmitter power based on the result of the determination (see col. 6, lines 12-24). Kubo fails to teach the feature of setting the energy at which the transmit power control command is transmitted based on the determined difference, including increasing the energy when the difference is determined not to be substantially zero.

Juntti discloses a power control apparatus in which, based on the result of a comparison of a measured received signal, a transmitter's power is adjusted (see col.

3, line 63 to col. 4, line 25), which suggests the use of the adjusted transmitter's power to send power control commands to a receiver. According to Juntti using the closed loop control method provides accuracy, minimizing power consumption and reduced interference (see col. 4, lines 26-43).

It would therefore have been obvious to one of ordinary skill in the art to combine the accurate open loop power control system of Juntti with Kubo's system in order to ensure that control information such as power control commands are received correctly to optimize utilization of radio resources including obviating the effects of fading.

Regarding claims 2 and 13 the combination of Kubo and Juntti fail to explicitly teach where the step of setting the energy comprises setting the power at which the transmit power control command is transmitted. However, since Juntti suggests adjusting a transmitter's power based on a comparison of the quality of a received signal, which adjusted transmit power is used to transmit signals to the receiver including sending power control commands, it would have been obvious to one of ordinary skill in the art to provide for the setting of the energy at which the transmit power control command is sent in order to ensure that the transmit power control command is properly received.

Regarding claims 6-7, 9, 17-18 and 20, the combination of Kubo and Juntti meet all limitations as applied to claims 1 and 12 above by determining the difference between a measured quality of the received signal and a reference and carrying out an increase or decrease of the transmit power with a transmit power control command

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based on the difference with the increase or decrease of the transmission power being a function of the difference, including the difference being substantially zero (see Kubo , col. 6, lines 12). Kubo as modified by Juntti fail to explicitly teach determining whether the difference is substantially zero whereby the decreasing or increasing of the energy at which the transmit power control command is transmitted is based on the difference being substantially zero. However, since Kubo teaches determining differences to control transmission power, it would have been obvious to one of ordinary skill in the art to subjectively define the values of the difference at which the power control width would be increased or decreased including a value of approximating or close to zero in order to control unnecessary power consumption while reducing adverse interference to other mobile terminals in the mobile communication network.

Regarding claims 21 and 22 the combination of Kubo and Juntti meet wherein the transmit power control is performed for the uplink direction, and the apparatus is included in a base station and in the downlink direction, the apparatus being included in a remote terminal (see Juntti , col. 4, line 5 to col. 5, line 6).

4. Claims 3 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over **Kubo et al and Juntti** as applied to claims 1 and 12 above, and further in view of **Baum et al. (6,385,462)**.

Regarding claims 3 and 14, Kubo as modified by Juntti fail to specifically disclose wherein the step of setting the energy comprises adjusting the coding of the transmit power control command.

Baum discloses adaptive power allocation method for providing adaptive power allocation with selective determination of modulation and coding in a communication system, which provides flexibility to modify the adaptive power allocation (see col. 1, lines 7-15). According to Baum a modulation/coding rate is selected for each planned link for the communication system based on signal quality associated the transmit power assigned to the link (see col. 2, lines 1-27), and that by adapting the modulation/coding rate in accordance with signal quality associated with the transmit power, imperfections of power control to increase system capacity can be taken advantage of (see col. 8, lines 19-45).

It would therefore have been obvious to one of ordinary skill in the art to use the selective coding based on signal quality associated with a transmit power with the system of Kubo and Juntti for the benefit of providing flexibly adaptive power control while taking advantage of the imperfections of power control to increase system capacity as taught by Baum.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Esteves et al. (6,687,510) discloses a method for power allocation on a reverse link power control channel of a communication system.

Gilhousen et al. (5,485,486) discloses a method for controlling transmission power in a CDMA cellular system.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CA  
August 22, 2004

  
**CHARLES APPIAH**  
**PRIMARY EXAMINER**